

(Society Islands) in the following types of breeding places: tree holes, coconut husks, and various types of artificial containers. The larvae are frequently found in association with those of *A. polynesiensis*. The adults have been observed to attack man at night, but rarely in considerable numbers. They are sometimes seen resting in houses but are more commonly found in natural resting places such as tree buttresses.

The junior author has shown that occasional specimens of the species are capable of allowing complete development of Polynesian strains of

Wuchereria bancrofti. *C. atriceps* would not seem to be an important vector of this parasite in nature because of its inefficiency as a host and the rarity with which it attacks man.

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ENTOMOLOGY.—*Laelaps oryzomydis*, *n. sp.*, with a key to some American species of *Laelaps* (Acarina: Laelaptidae). H. D. PRATT and JOHN E. LANE,¹ U. S. Public Health Service, Atlanta, Ga.

A new species of mite in the genus *Laelaps* has been collected in several States in southeastern United States. The species name *oryzomydis* here assigned to it refers to the fact that the type series was collected on rice rats (*Oryzomys palustris*).

Female (Fig. 1).—Length, exclusive of gnathosoma, about 0.6 mm, width about 0.4 mm. Chelicera with basal segment about as long as apical segment without chelae, fixed chela with two fine teeth and a seta, and movable chela with two teeth opposite seta of fixed chela. Jugularia absent but a differentiated jugular area present which extends across the sternal plate. Sternal plate widest between coxae II and III, posterior margin moderately, irregularly concave, anterolateral corners pointed, the usual six setae present with slightly expanded sternal pores behind the four anterior setae. Endopodal plates distinct and small. Genito-ventral plate with anterior margin faintly striate, strongly expanded behind fourth coxae, bearing four pairs of setae which are longer than the interval between adjacent setae. Anal plate similar in shape to that in *Haemolaelaps glasgowi* (Ewing), the anterolateral corners rounded, anus about three-fourths its length from the

anterior margin of anal plate, the paired setae tangential to posterior margin of anus and distinctly more slender than the posterior seta. Coxa I has the internal spine distinctly stouter than the external spine; coxa II has a slender anterior and stout posterior spine; coxa III has a long slender anterior and stout, short, posterior spine; coxa IV has a single minute seta near the coxal trochanteral articulation. Dorsal shield nearly covering dorsal surface, the majority of the seta almost as long and strong as those on the genito-ventral plate.

Laelaps oryzomydis is closest to *Laelaps nuttalli* Hirst, which is collected in large numbers by workers of the U. S. Public Health Service Typhus Control Program. It differs from this last species in having the internal spine on the forecoxa stouter than the external spine, while the reverse is true in *nuttalli*. The anal plate is more triangular in *nuttalli* than in *oryzomydis*. The two setae on the posterior margin of the genito-ventral plate are more widely separated in *nuttalli*, being tangential with the anterior corners of the anal plate, while in *oryzomydis* these setae are placed closer together, being definitely median to the corners of the anal plate. There are expanded pores behind the two anterior and two middle setae on the sternal plate in *oryzomydis*. These are reduced and slit-like in *nuttalli*.

Male.—About 0.5 mm long. Very similar to other male *Laelaps*. It falls in the group having the sternal, genitoventral, and anal plates all fused into one arrowhead-shaped holoventral plate and the dorsal plate with long, slender

¹ The writers wish to acknowledge the constructive criticism of Dr. E. W. Baker, of the U. S. Bureau of Entomology and Plant Quarantine, during the preparation of this paper. They are also grateful to Drs. S. W. Simmons, H. P. Nicholson, and C. M. Tarzwell, of the Technology Branch of the Communicable Disease Center, and B. A. Barrington and C. B. Worth, who made available these collections of ectoparasites upon which the new species is based.

setae. Chelicera with chelae long and slender, smooth, apparently twice as long as the segment which bears them. The second and fourth tarsi with slender setae, peritreme extending to middle of coxa II.

Holotype.—Female, Jasper County, S. C., December 8, 1948, H. P. Nicholson. Collected from rice rat (*Oryzomys palustris palustris* (Harlan)). U. S. National Museum no. 2073.

Allotype.—Male, same data as above, in the U. S. National Museum.

Paratypes.—Tampa, Fla., March 1949, C. B. Worth, host *Oryzomys palustris natator* Chapman, 8 paratype females; Gainesville, Fla., November 17, 1946, B. A. Barrington, host

Oryzomys palustris natator Chapman, 8 paratype females; Jasper County, S. C., from March 5 to December 10, 1948, all on *Oryzomys palustris palustris* (Harlan), 50 paratype females mounted on slides.

Holotype, allotype, and paratypes in the U. S. National Museum collection. Paratypes in the U. S. Public Health Service, Communicable Disease Center collection, Atlanta, Ga.; Rocky Mountain Laboratory at Hamilton, Mont.; and Western Communicable Disease Center Laboratory, San Francisco, Calif.; Texas State Department of Health collection, Austin, Tex.; and the private collection of Dr. R. W. Strandtmann, Lubbock, Tex.

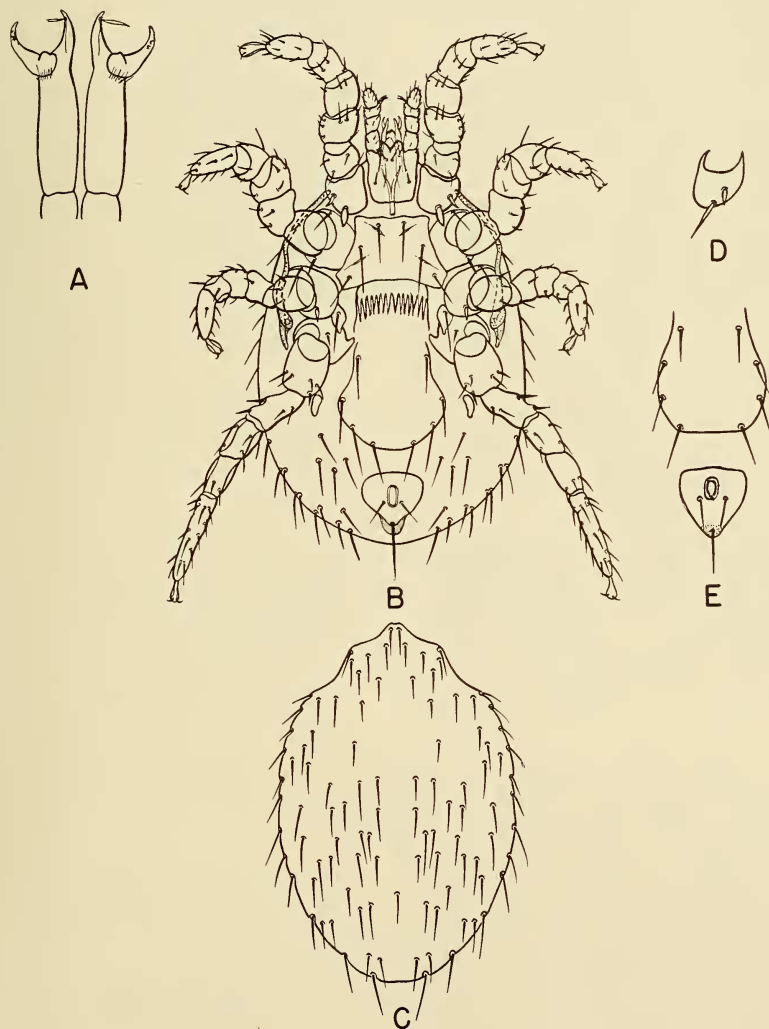


FIG. 1.—A-C, *Laelaps oryzomydis*, n. sp.: A, Chelicerae; B, ventral aspect of female; C, dorsal plate of female. D, E, *Laelaps nuttalli* Hirst: D, Forecoxa of female; E, genitoventral and anal plate of female.

This species probably breeds throughout the year on rice rats, various subspecies of *Oryzomys palustris*. The biggest collection, from Jasper County, S. C., game refuge, contained at least 46 *Laelaps oryzomydis*. The rice-rat louse (*Hoplopleura oryzomydis* Pratt and Lane) and the following mites were also found in collections from rice rats: *Gigantolaeps cricetarum* Morlan, *Haemolaeps glasgowi* (Ewing), *Haemolaeps megaventralis* Strandtmann, *Bdellonyssus* species near *bacoti*, *Androlaeps* species, and often hundreds of mites of the family Listerophoridae on a single rice rat. The cotton-rat flea (*Polygenis gwyni* (C. Fox)) was also found in these same collections.

The following keys to male and female *Laelaps* are modified from those of Grant (1947):

A KEY TO SOME SPECIES OF MALE NORTH AMERICAN LAELAPS

1. Dorsal plate with long, hairlike setae; sternal, genitoventral, and anal plates all united into a single holovertebral plate..... 2
 Dorsal plate with short, spiniform setae; sternal and genitoventral plates united, but separate from anal plate..... 5
2. Second tarsus with some short curved spiniform setae near tips (on microtine mice)
L. alaskensis Grant
 Second tarsus without curved spiniform setae, all straight..... 3
3. Peritreme tube extending to coxa II; second tarsus with slender setae only (on rice rats, genus *Oryzomys*)..... *L. oryzomydis*, n.sp.
 Peritreme tube extending forward beyond coxa II; second tarsus with some stout setae..... 4
4. Larger species at least 0.9 mm long (on domestic rats, genus *Rattus*)..... *L. echidninus* Berlese
 Smaller species 0.5 to 0.8 mm long (on domestic rats, genus *Rattus*)..... *L. nuttalli* Hirst
5. United sternal and genitoventral plate widely separated from the anal plate and with posterior border slightly concave (on microtine mice)..... *L. kochi* Oudemans

United sternal and genitoventral plate with posterior border proximal to the anal plate (on muskrats, genus *Ondatra*)
L. multispinosus Banks

A KEY TO SOME SPECIES OF FEMALE NORTH AMERICAN LAELAPS

1. Anal plate contiguous with genitoventral plate and fitting into a strong concavity in genitoventral plate (on domestic rats in genus *Rattus*)..... *L. echidninus* Berlese
 Anal plate separated from genitoventral plate, which is usually convex or straight on posterior margin, not strongly concave..... 2
2. Dorsal setae long and slender..... 3
 Dorsal setae small and short..... 5
3. Internal spine on forecoxa distinctly stouter than external spine (on rice rats in genus *Oryzomys*)..... *L. oryzomydis*, n.sp.
 Internal spine on forecoxa more slender than external spine..... 4
4. Genitoventral plate widely separated from anal plate; anal plate with anterior margin rounded (on microtine mice)
L. alaskensis Grant
 Genitoventral plate extending posteriorly almost to anal plate; anal plate with anterior margin truncate and definite angular anterolateral corners (on domestic rats in genus *Rattus*)..... *L. nuttalli* Hirst
5. Anal plate subtriangular; posterior border of sternal plate deeply arched; coxal spines not greatly enlarged basally (on microtine mice)..... *L. kochi* (Oudemans)
 Anal plate suboval; posterior border of sternal plate poorly defined, not greatly arched; coxal spines greatly enlarged basally (on muskrats of genus *Ondatra*)
L. multispinosus Banks

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ZOOLOGY.—Two new semiparasitic harpacticoid copepods from the coast of New Hampshire. ARTHUR G. HUMES, Department of Biology, Boston University. (Communicated by Fenner A. Chace, Jr.)

Two new species of semiparasitic harpacticoid copepods were found in the summer of 1952 during routine classroom study of living invertebrates at the University of New Hampshire. One, belonging to the genus *Nitocra* Boeck (Ameiridae), inhabited small pits in the exumbrellar surface of a scypho-

zoan medusa. The other, a member of the genus *Mesamphiascus* Nicholls (Diosaccidae), occurred on the first maxillipeds of the American lobster.

Nitocra medusaea, n. sp.

Approximately 1,030 individuals of this copepod were discovered on the exumbrellar surface